THE PLOUGH BOY.

AND JOURNAL OF THE BOARD OF AGRICULTURE.

BY SOLOMON SOUTHWICK.

"He that observeth the wind shall not sow; and he that regardeth the clouds shall not reap."—BUT—"He that tilleth his land shall have plenty of bread."—*Ecclesiastes*.

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ORIGINAL.

Essays of Arator.—No. II.

FOR THE PLOUGH BOY.

SHREWDNESS.

There is a propensity in mankind to be thought *cunning* which betrays itself even in the most stupid clown. The same principle operating upon persons of better sense and more refinement, not unfrequently betrays them into an error, which for the want of a better name, we will denominate Shrewdness, than which, perhaps, few habits are more disagreeable, and certainly none is less useful. The Shrewdness to which we allude is not that refined satire which men of genius sometimes employ with great success to combat the arguments of their opponents; we have reference to that kind of vulgarity which is generally dignified with the name of *repartee*, but which might more properly be denominated *ribaldry*. It is aimed not so much at principles as at men. Its object is not so much to shew the absurdity of another's opinions, as to make his person and manners appear ridiculous. It would appear as if the person using it wished to convince the company of the superiority of his own intellect at the expense of another's peace. Nothing can be more unfeeling than designedly to wound the sensibility of a mind already labouring under embarrassment; and nothing more ill-bred than an attempt to increase a diffident person's mortification. Good breeding is surely more gentle, and would endeavor to remove the agitation of him who is disconcerted, and to make every one easy with himself, and pleased with the company. Such a principle is founded not merely upon local or arbitrary rules of etiquette—it is plainly the dictate of humanity, and they who violate it are guilty of a breach of the first principle of benevolence. Refined satire may perhaps sometimes be both pleasant and useful, but for ourselves we confess we cannot crave the reputation of being *cunning*, or covet the pleasure arising from the exercise of *repartee*. The habit we have been describing, commonly leads its votaries into the grossest errors. We have known persons render themselves ridiculous by indulging in this kind of shrewdness. CYRENUS is a young man of accomplished manners, and more than ordinary talents. His agreeable deportment, pleasant disposition, and fine understanding, render him a desirable associate: beside he has a faculty of being extremely companionable. But Cyrenus has a wonderful propensity to be shrewd: we saw with regret this desire growing upon him; but he appeared insensible of his danger, till it gained a complete ascendancy: and Cyrenus, with all his refinement and endowments of mind, became a wag. So great a slave is he to a desire of being thought *shrewd* that he is rarely heard to speak well of any person: If he makes use of their name, it is for the purpose of saying something *cunning*, and thus indulging in his favorite passion. We have often listened to his sarcasms with pain and astonishment, that a young man of his breeding and good sense, should fall into an error so disgusting and vulgar—a habit, which, notwithstanding his other fine qualities, cannot but render him at once an unpleasant and dangerous companion.

AMANDA is a young lady of a considerable sprightliness of mind, but unfortunately much inclined to satire. She has been flattered by her friends who think her without an equal, and who have been successful in fixing upon *her* mind the same impression. We have often spent time in her company, and think she might be truly *agreeable* but for the desire of being *cunning*. So notorious is her itch to say something *shrewd*, or as the vulgar express it to say something *keen*, that she renders herself really ridiculous; and Amanda, who might be quite interesting, is truly one of the most disagreeable young ladies we have ever known. She is destitute of all that sweetness and delicacy which is the ornament of her sex, and has substituted for it a masculine coarseness which cannot fail to disgust any gentleman of taste with whom she may happen to converse. We have known quite a promising young girl (who may here be nameless) with no particular gross propensity, who in making her debut into society happened unfortunately to fall under the guidance of those not dissimilar to Amanda; these she copied, and in a few weeks became so great an adept in *shrewdness*, that really a modest man could not sit in a company where she was, without constantly trembling with fear that the next arrow of her wit would be aimed at him; and though her shafts are not quite so deadly—not quite so *keen* as is a serpent's tooth, they were still to be dreaded, for *modesty* forbade the application of an *antidote*. There is, indeed, in this habit, something so unkind, something so masculine, something so vulgar, that we cannot witness it without disgust, or reason upon it without disapprobation. In females it is *most* unpleasant, because most unnatural. In them we expect to find an engaging delicacy, and we cannot without pain, see them so far depart from their native sphere—so far transgress the bounds of modesty. It is truly desirable that they should better know in what their charms consist; for it may be fairly presumed they would not then assume a masculine superiority at the expense of female delicacy. But it is not incumbent on females alone, to reject this *shrewdness*, for as it leads to other errors, particularly that worst of vices, *Slander*, it becomes *every* person to guard against it. If we were to venture an opinion, as to the cause of persons con-

tracting this habit, we should say it generally arose from their not having the advantage of seeing superiors. Accustomed to converse only with inferiors, they imbibe an idea that they have no rivals, that they are in reality superior to every body else, and may with some degree of propriety, assert their superior wit, by making others feel the smart of it. Such being the *cause*, it is easy to imagine a *remedy*; it is easy to imagine that if they would accustom themselves to converse with those of better endowments, or even to *think* of superiors, there would be little danger of falling into this error, little probability of becoming so irresistibly *keen*.

ARATOR.

Domestic Economy.

FOR THE PLOUGH BOY.

Mr. Editor,

The Albany receipt for curing hams is defective. It directs that the hams are to be rubbed with a pound of salt and an ounce of saltpetre, made into a paste with molasses, *see* No. 39; but it does not state how many hams, nor the weight of a single one, which is important, if a single one is meant.

The following rules I have found excellent.—The first is from an American gentleman; the second from Ireland.

Two ounces of saltpetre and two pound blown salt, for one ham of 10 or 12 lb. Let the saltpetre be made fine, and together with the salt, mixed with as much molasses as will make a good paste. With this, rub the ham, and baste with the liquor for two weeks; smoke gradually, with the thick end up.

For a ham of 16 lbs.—Take two ounces of saltpetre, finely powdered, mix two spoonfuls of brown sugar, rub them well on the ham, and let it be 24 hours; then pound fine 1 1-2 lb. packing salt, mix with 2 lbs. of common white salt and half an ounce of ground black pepper; make these ingredients hot, and rub the ham well; let it lie 4 days, then rub it again, adding one pound of molasses; let the ham lie in this pickle three weeks, turning and rubbing it every other day; put it into fresh water for 5 hours, then hang it up to dry, not hurrying in the drying.

To cure Beef, say 1 cwt.

Take 8 ounces of saltpetre, 10 ounces of brown sugar. make them hot, and rub your beef; let it lie two days, and then rub it with 8 lbs. of common salt, made fine, and heated with 4 oz. of cayenne pepper; let it lie a week, then draw off the pickle; and if it will not cover the meat, add a little strong pickle; boil and skim the pickle, and when cold, cover the meat, and press it down with a weight.

These receipts I have proved, and can recommend them. T. P.

Stockbridge, Mass. Feb. 28, 1820.

The "Hoof Ail."

TO THE EDITOR OF THE PLOUGH BOY.

Sir,

Having noticed some observations on the hoof ail, in the 37th and 38th Nos. of the Plough Boy, I feel induced to submit to you my experience on that subject, as it respects horned cattle.—The first time this disease attracted my attention was on a visit to a gentleman, in Otsego county, in the year 1800, and I find the following notice entered in my diary of the 10th March, 1800:—"A number of farmers, in Springfield, Otsego; Warren, Herkimer, have lost their horned cattle by a very singular disorder, which they name the fouls. It is first perceived by the creatures being lame in their hind feet; this gradually increases, the animal becomes feverish, the feet become dead, as if froze, and the hoof, and sometimes even the foot, up to the joint, comes off, and the creature dies. Several farmers have lost their whole stock, and most of them more or less. Mr. Wm. T. lost six cows, and his brother Joseph has many sick, but has not lost any yet; he bleeds the sick and well; and when he perceives them becoming lame, splits down the claws on the forepart to the bone, and dresses the sore with some strong, irritating ointment, &c. The fouls is quite a different disorder."

It was about four years after this when the disorder made its first appearance in my own stock. Several of my cattle became lame, were feverish, uneasy, and had lost their appetite: the soreness had not yet appeared on their feet, when accident discovered the true cause of the disease, and enabled me to arrest its progress. A young cow having died in calving, which I had observed to be lame, I cut off the point of the hoof belonging to the lame foot: this hoof was hollow at the toe, the bone in a state of decay, and matter was discharged from the opening; all the other hoofs were sound. One of my working oxen being lame, I had him cast, examined the hoof with a gimblet, found it hollow, sawed off the point, found matter, and the bone in a state of decay; I filled the hollow and with tow, covered it with a strong cloth well tarred; the ox recovered from his lameness, and took to his hay: the operation seemed to give immediate relief. Several cows and young cattle were treated in a similar manner, and all recovered. In some both feet were affected; in most only one hind foot; and I frequently found only one claw diseased. To account for the disorder being almost universally confined to the hind feet, I was at a loss, till a careful observation of the habits of the animal solved the difficulty. When an ox, or cow, is lying on the ground, the fore feet, and generally one hind foot, are covered with the body, and this protects these extremities from external cold; when the head is turned round, all the feet are covered; but when the animal ruminates, one foot is exposed. It will be seen in the note made in 1800, that the hind feet were most liable to this disorder.

Since that time I have paid particular attention to this disease as it has occurred in my own cattle, and those of my neighbours; have made enquiries respecting it from almost every judicious farmer that I have met with, and am fully convinced that the hoof ail is the effect of frost, and nothing else.

If the hoof be not removed at the toe, the matter will work up, loosen the hoof, which comes off, the animal being in pain during the process; but sometimes the injury is so extensive, that the whole foot will separate, as happened to four of my calves in one winter; and in the winter 1816 and 1817, to a weakly cow, by placing her in a cold stable, under the floor of which the wind had free access.

In 1817, an English farmer purchased a farm in my neighbourhood. Dissatisfied with our manner of wintering cattle, he built a cow-house, and tied up all his stock. The floor of the cow-house was plank, and open beneath. I warned him of the danger; but he thought his cattle secure: 17 head were frozen in one night. In the winter of 1815 and 16, one of the largest farmers in the town lost most of his stock. I saw their skeletons in the autumn, when riding past his field; his cow yard was wet and exposed. Although the weak cattle will be found most liable to this accident, yet the strongest and most hardy will, in unfavorable situations, also suffer, as I experienced in the winter of 1811 and 12, when not having stable room, I left out a two year old bull, and a four year old heifer, both remarkably hardy; though in good case, they froze; whilst my cows, standing on an earthy floor, in a warm stable, all escaped.

Whether the ergot may cause a similar disease, I am not prepared to say. I had no spire grass on my farm when I suffered from the hoof ail. Some has now got into my meadows; I cannot find any thing like ergot amongst it; but without being affected with ergot, I believe it may be an excellent fodder to predispose stock to the hoof, or any other ail, incident to debility. Timothy, or cat's tail, being a much later grass, and constituting the greater part of our hay, our time of mowing is adapted to the best period for cutting the timothy, by which time the June grass has generally ripened its seed, and the stalk has become dry and sapless, affording little nourishment to the cattle; and both horses and cows will prefer clean cut straw to June grass hay, when cut late. In fact, I have observed that hunger alone will compel them to eat it.

When this part of the country was first settled, we had generally more snow, and that lay more evenly than at present. This snow, as will be shewn, was a great preservative to the few cattle which the early settlers owned. By an observation for many years, I am convinced that the hoof ail will not be found except in those districts where the thermometer descends to a low degree. We hear nothing of it in the middle or southern parts of Europe, nor even so far as I have known, beyond the Potomac. Indeed I am so fully convinced of this, that I generally regulate my preventive measures by the thermometer. What these are, I will now state.

The best I conceive to be a warm stable, with an earthy floor, sunk 1 or 2 feet below the common surface. In pleasant weather, the cattle ought to be drove out in the morning, and left out till night; if the frost is rather severe, they ought to be drove to water at noon, and tied up soon; in excessive keen weather, I should prefer keeping them in all day, even without water.

Next to a stable of this description, I would prefer wintering my cattle around a stack, without shelter. I never have known a beast frost-bitten that was wintered at a stack; and my calves have uniformly throve best when turned to a stack of good hay. A well littered cow yard is as bad as a cold stable. In the former, the cattle are tempted to remain in the same position till their extremities are frost bitten. To prevent this, I throw my straw into one or more square pens, from whence the cattle pick it at their leisure.—I prefer keeping my cattle out of the yard till the ground is frozen; and if possible till a fall of snow has taken place. During the winter, every cold night the yard is visited at bed time, and the cattle drove round: if the weather is very severe, they are turned out into an open field, especially if there is a good depth of snow on the ground, and that in the yard has been much trodden. I esteem snow the best antidote against the hoof ail: we all know its use in cases of freezing in the human species. One of my neighbours, a farmer on an extensive scale, and a most intelligent person, who has raised some hundreds of neat cattle, informs me, that in severe weather, he has frequently got up at midnight to drive his cattle from the straw yard to a field covered with snow. This gentleman, who possesses more practical knowledge than any other I am acquainted with, coincides in opinion with me, that the hoof ail is caused by the animals having their extremities frost-bitten.

You will see that the means of preventing are plain, and within the reach of every one. The mode of treatment is shewn above; but if the extremities are both affected, so as to cause a separation of both feet, it will be the best way to kill the beast at once. I have fatted a cow that lost one foot; but the profit did not balance the expense.

Yours, truly,
ALEXANDER COVENTRY.

Deerfield, Oneida co. Feb. 29, 1820.

Board of Agriculture.

COUNTY RETURNS OF 1819.

[The Editor of *The Plough Boy*, having in his possession the documents of the Board of Agriculture, and having authority from the General Committee to publish from time to time, such parts of or extracts from the same as he may deem useful, will avail himself of this advantage, for the benefit of his readers. The following articles, found among the county returns of 1819, will not we presume, be unacceptable. By the publica- of such extracts from the documents in our possession, we hope to inspire our Agricultural readers with a spirit of emulation. As the Board and the County Societies progress in their laudable efforts to improve the Agricultural condition of the state, such articles as the following will multiply upon our hands, and will, we trust, give additional interest to *The Plough Boy* in the estimation of our fellow-citizens.]

ALBANY COUNTY.

PROCESS FOR RAISING RUTA BAGA.

To the Viewing Committee of the Albany County Agricultural Society.

GENTLEMEN,

The process I adopted in cultivating an acre and three roods of ground, on which I have reared a crop of Ruta Baga, viewed by the committee, was as follows:

The land, which was a loamy soil, was ploughed last autumn, and left in a rough state; it was cross-ploughed the latter end of May, and on the 15th of June, about thirty waggon loads of stable manure, which had been put in a heap the preceding fall, was strewed over the ground and ploughed in with a shallow furrow. On the day I began to plant, which was the 24th of June, the ground was thrown into ridges, as fast as the planters required, by going down the field one way, and returning up, leaving the ridges about 12 inches wide on the top and four feet apart; although mine were not uniformly so, yet I am satisfied that four feet is the proper distance. Where the ridges were not even or smooth, they were expeditiously levelled with a hoe. Two men dropped the seed, sometimes singly, and at others, two or three seeds at the distance of 10 or 12 inches apart, and another man slightly covered them with a hoe, and pressed down the earth on the seed. The planting was not finished until the third day, owing to rain. They were ploughed and wed out twice: on the first ploughing, the earth was turned from the turnips, and in the second, to them. Two furrows were struck between the ridges by a small single horse plough, although a plough with a double mould board would have been preferable. I am decidedly of opinion the crop would have been better, if oftener ploughed. At the second hoeing, the time of doing which was indicated by the weeds, those plants which stood too near each other, were taken up. This ought never to be omitted, if they are thrown away; but I transplanted the good plants, of which I have nearly a quarter of an acre, and they are fine turnips, though not so large as the others. The transplanting took place early in August. I confidently expect 600 bushels to the acre. In short I have pursued Mr. *Cobbett's* method pretty closely in managing this crop, and think him a public benefactor for the unwearied pains he has taken, in not only pointing out the great advantages of such a crop, but in giving us his excellent treatise on the rearing and cultivating this valuable turnip, which I have no doubt, will be found highly useful in feeding and fattening all kinds of animals.

A. SPENCER.

October 12, 1819.

METHOD OF CULTIVATING WHITE TURNIPS,

To the Viewing Committee of the Albany County Agricultural Society.

GENTLEMEN,

The acre of white turnips offered by me for a premium, were sown the 28th July, except about one quarter of an acre, which, on account of grain being stacked on that part, were not sown till about the 14th of August. The soil is a light sandy loam, principally on a poor dry ridge. The land was cleared in 1818, and sown with rye in the fall. The crop was trifling on the ridge, but better in the swale. After the rye was cut in July, I took 12 loads of manure, and spread it on, ploughed up the stubble, harrowed it, and sowed one pound of seed. I gave a part, a slight top-dressing of hog-ashes, and on other parts, I spread lime and common ashes. I find they all answered well, and the turnips are wholly free from worms. Two hands were employed a day, in thinning them with a hoe, and cleaning them of weeds. The seed was sown broad cast.

J. BUEL.

October 5, 1819.

OTSEGO COUNTY.

METHOD OF CULTIVATING INDIAN CORN.

To the Viewing Committee of Otsego County Agricultural Society.

The piece of land on which I raised the corn is situated on a flat near the bank of a brook, running through the village of Louisville. The soil is rather a sandy loam, and in many places mixed with gravel; it had been in meadow for ten years past, and in latter years produced but scanty crops of hay, being swarded chiefly with spear grass: I am confident it did not bring over 5 cwt. of hay to the acre last year. I ploughed it last fall, the latter end of October, after having spread a thin coat of common barn manure over it, and was careful to turn over the sward flat. This last spring I harrowed it, the same way I ploughed it, then made a mark with a plough, drawn by one horse, across the piece; but, owing to the unsteadiness of the horse, the rows were not of equal distance; some varied from three to six feet in distance from each other. Next the corn was dropped along the rows by a boy, about 3 or 4 inches apart, and covered by a man who followed. The corn, in some places was pulled up by the birds, which was, however, stopped as soon as possible. As soon as it had acquired sufficient height, it was harrowed with a small hand harrow, between the rows, and it received what may be termed a top-dressing; and as it looked very yellow and sickly, it was ashed, which I thought altered its colour much for the better. Next it was ploughed, going and returning in each row, throwing the earth each way against the corn. By this time the sward was rotted, so as to appear like old cheese. After this first hilling, it was plaistered—it grew very fast, and had a luxuriant appearance. Then it was suckered, and wherever it stood too thick, pulled out. Next, just before I began my haying, it was once more ploughed as before and received its last hilling, which was done very quick, it being a mere brushing over with a hoe. This was all that was done until harvested, and one acre produced 77 two bushel baskets full of ears, which I have no doubt will make 77 bushels, or more of corn, when thrashed next spring. I am of opinion if my rows had been regular, and only three feet apart, I should have had 100 bushels per acre.

PASCHAL FRANCHOT.

October 2, 1819.

SELECTIONS.

Agricultural Chemistry,

No. XXX.

BY HUMPHREY DAVY.

DEPREDATIONS OF INSECTS ON YOUNG PLANTS.

[193] The saccharine matter in the cotyledons at the time of their change into seed-leaves, renders them exceedingly liable to the attacks of insects: this principle is at once a nourishment of plants and animals, and the greatest ravages are committed upon crops in the first stage of their growth.

The turnip fly, an insect of the colyoptera genus, fixes itself upon the seed-leaves of the turnip at the time that they are beginning to perform their functions; and when the rough leaves of the plume are thrown forth, it is incapable of injuring the plant to any extent.

Several methods have been proposed for destroying the turnip fly, or for preventing it from injuring the crop. It has been proposed to sow radish seed with the turnip seed, on the idea that the insect is fonder of the seed-leaves of the radish than those of the turnip. It is said that this plan has not been successful, and that the fly feeds indiscriminately on both.

There are several chemical menstrua which render the process of germination much more rapid, when the seeds have been steeped in them. As in these cases the seed-leaves are quickly produced, and more speedily perform their functions, I proposed it as a subject of experiment to examine whether such menstrua might not be useful in raising the turnip more speedily to that state in which it would be secure from the fly; but the result proved that the practice was inadmissible; for seeds so treated, though they germinated much quicker, did not produce healthy plants, and often died soon after sprouting.

[194] I steeped radish seeds in September, 1807, for 12 hours, in a solution of chlorine, and similar seeds in very diluted nitric acid, in very diluted sulphuric acid, in weak solution of oxysulphate of iron, and some in common water. The seeds in solutions of chlorine and oxysulphate of iron, threw out the germ in two days; those in nitric acid, in three days; in sulphuric acid, in five; and those in water, in seven days. But in the cases of premature germination, though the plume was very vigorous for a short time, yet it became at the end of a fortnight weak and sickly; and at that period less vigorous in its growth than the sprouts which had been naturally developed, so that there can be scarcely any useful application of these experiments. Too rapid growth and premature decay seem invariably connected in organized structures; and it is only by following the slow operations of natural causes, that we are capable of making improvments.

There is a number of chemical substances which are very offensive and even deadly to insects, which do not injure, and some of which even assist vegetation. Several of these mixtures have been tried with various succees; a mixture of sulphur and lime, which is very destructive to slugs, does not prevent the ravages of the fly on the young turnip crop. His Grace the Duke of Bedford, at my suggestion, was so good as to order the experiment to be tried on a considerable scale at Woburn farm: the mixture of lime and sulphur was strewed over one part of a field sown with turnips; nothing was applied to the other part, but both were attacked nearly in the same manner by the fly.

[195] Mixtures of soot and quicklime, and urine and quicklime, will probably be more efficacious. The volatile alkali given off by these mixtures is offensive to insects; and they afford nourishment to the plant. Mr. T. A. Knight* informs me, that he has tried the method by ammoniacal fumes with success; but more extensive trials are necessary [196] to establish its general efficacy. It may, however, be safely adopted, for if it should fail in destroying the fly, it will at least be an useful manure to the land.

OF THE FUNCTIONS OF PLANTS.

After the roots and leaves of the infant plant are formed, the cells and tubes throughout its structure become filled with fluid, which is usually supplied from the soil, and the function of nourishment is performed by the action of its organs upon the external elements. The constituent parts of the air are subservient to this process: but, as it might be expected, they act differently under different circumstances.

When a growing plant, the roots of which are supplied with proper nourishment, is exposed in the presence of solar light to a given quantity of atmospherical air, containing its due proportion of carbonic acid, the carbonic acid after a certain time is destroyed, and a certain quantity of oxygene is found in its place. If new quantities of carbonic acid gas be supplied, the same result occurs; so that carbon is added to plants from the air by the process of vegetation in sunshine; and oxygene is added to the atmosphere.

This circumstance is proved by a number of experiments made by Drs. Priestley, Ingenhousz and Woodhouse, and M. T. de Saussure; many of which I have repeated with similar results. The absorption of carbonic acid gas, and the production of oxygene are performed by the leaf; and leaves recently separated from the tree effect the change, when confined in portions of air containing carbonic acid; and absorb carbonic acid and produce oxygene, even when immersed in water holding carbonic acid in solution.

[197] The carbonic acid is probably absorbed by the fluids in the cells of the green or parenchymatous part of the leaf; and it is from this part that oxygene gas is produced during the presence of light. M. Sennebier found that the leaf, from which the epidermis was stripped off, continued to produce oxygene when placed in water containing carbonic acid gas, and the globules of air rose from the denuded parenchyma; and it is shewn both from the experiments of Sennebier and Woodhouse, that the leaves most abundant in parenchymatous parts produce most oxygene in water impregnated with carbonic acid.

Some few plants* will vegetate in an artificial atmosphere, consisting principally of carbonic acid, and many will grow for some time in air, containing from one-half to one-third; but they are not so healthy as when supplied with smaller quantities of this elastic substance.

Plants exposed to light have been found to produce oxygene gas in an elastic medium, and in water containing no carbonic acid gas; but in quantities much smaller than when carbonic acid gas was present.

In the dark no oxygene gas is produced by plants, whatever be the elastic medium to which they are exposed; and no carbonic acid absorbed. In most cases, on the contrary, oxygene gas, if it be present, is absorbed, and carbonic acid gas is produced.

[198] In the changes that take place in the composition of the organized parts, it is probable that saccharine compounds are principally formed during the absence of light; gum, woody fibre, oils, and resins, during its presence; and the evolution of carbonic acid gas, or its formation during the night, may be necessary to give greater solubility to certain compounds in the plant. I once suspected that all the carbonic acid gas produced by plants in the night, or in shade, might be owing to the decay of some part of the leaf, or epidermis; but the recent experiments of Mr. D. Ellis, are opposed to this idea; and I found that a perfectly healthy plant of celery, placed in a given portion of air for a few hours only, occasioned a production of carbonic acid gas, and an absorption of oxygene.

Some persons have supposed that plants exposed in the free atmosphere to the vicissitudes of sunshine and shade, light and darkness, consume more oxygene than they produce, and that their permanent agency upon air is similar to that of animals; and this opinion is espoused by the writer on the subject I have just quoted, in his ingenious researches on vegetation. But all the experiments brought forward in favour of this idea, and particularly his experiments, have been made under circumstances unfavourable to accuracy of result. The plants have been confined and supplied with food in an unnatural manner; and the influence of light upon them has been very much diminished by the nature of the media through which it passed. Plants confined in limited portions of atmospheric air soon become diseased; their leaves decay, and [199] by their decomposition they rapidly destroy the oxygene of the air. In some of the early experiments of Dr. Priestley, before he was acquainted with the agency of light upon leaves, air that had supported combustion and respiration, was found purified by the growth of plants when they were exposed in it for successive days and nights: and his experiments are the more unexceptionable, as the plants, in many of them, grew in their natural states; and shoots, or branches from them, only were introduced through water into the confined atmosphere.

I have made some few researches on this subject, and I shall describe their results. On the 12th of July, 1800, I placed a turf four inches square, clothed with grass, principally meadow fox-tail and white clover, in a porcelain dish, standing in a shallow tray filled with water; I then covered it with a jar of flint glass, containing 330 cubical inches of common air in its natural state. It was exposed in a garden, so as to be liable to the same changes with respect to light as in the common air. On the 20th of July the results were examined.—There was an increase of the volume of the gas, amounting to fifteen cubical inches; but the temperature had changed from 64 d. to 71 d. and the pressure of the atmosphere, which on the 12th had been equal to the support of 30.1 inches of mercury, was now equal to that of 30.2. Some of the leaves of the white clover, and of the fox-tail were yellow, and the whole appearance of the grass less healthy than when it was first introduced. A cubical inch of the gas, agitated in lime-water, gave a slight turbidness to the water; and the absorp- [200] tion was not quite 1-150 of its volume. 100 parts of the residual gas exposed to a solution of green sulphate of iron, impregnated with nitrous gas, a substance which rapidly absorbs oxygene from air, occasioned a diminution to 80 parts. 100 parts of the air of the garden occasioned a diminution to 79 parts.

If the results of this experiment be calculated upon, it will appear that the air had been slightly deteriorated by the action of the grasses. But the weather was unusually cloudy during the progress of the experiment; the plants had not been supplied in a natural manner with carbonic acid gas; and the quantity formed during the night, and by the action of the faded leaves, must have been partly dissolved by the water; and that this was actually the case, I proved by pouring lime-water into the water, when an immediate precipitation was occasioned. The increase of azote I am inclined to attribute to common air disengaged from the water.

The following experiment I consider as conducted under circumstances more analogous to those existing in nature. A turf four inches square, from an irrigated meadow, clothed with common meadow grass, meadow fox-tail grass, and vernal meadow grass, was placed in a porcelain dish, which swam on the surface of water impregnated with carbonic acid gas. A vessel of thin flint glass, of the capacity of 230 cubical inches, having a funnel furnished with stop-cock inserted in the top, was made to cover the grass; and the apparatus was exposed in an [201] open place; a small quantity of water was daily supplied to the grass by means of the stop-cock. Every day likewise a certain quantity of water was removed by a siphon, and water saturated with carbonic acid gas supplied in its place; so that it may be presumed, that a small quantity of carbonic acid gas was constantly present in the receiver. On the 7th of July, 1807, the first day of the experiment, the weather was cloudy in the morning, but fine in the afternoon; the thermometer at 67, the barometer 30.2: towards the evening of this day a slight increase of the gas was perceived, the next three days were bright; but in the morning of the 11th the sky was clouded; a considerable increase of the volume of the gas was now observed; the 12th was cloudy, with gleams of sunshine; there was still an increase, but less than in the bright days; the 13th was bright. About nine o'clock, A. M. on the 14th, the receiver was quite full; and considering the original quantity in the jar, it must have been increased by at least 30 cubical inches of elastic fluid: at times during this day globules of gas escaped. At ten on the morning of the 15th, I examined a portion of the gas; it contained less than 1-50 of carbonic acid gas: 100 parts of it exposed to the impregnated solution left only 75 parts; so that the air was four per cent. purer than the air of the atmosphere.

I shall detail another similar experiment made with equally decisive results. A shoot from a vine, having three healthy leaves belonging to it, attached to its parent tree, was bent so [202] as to be placed under the receiver which had been used in the last experiment: the water confining the common air was kept in the same manner impregnated with carbonic acid gas: the experiment was carried on from August 6th, till August 14th, 1807; during this time, though the weather had been generally clouded, and there had been some rain, the volume of elastic fluid continued to increase. Its quality was examined on the morning of the 15th; it contained 1-42 of carbonic acid gas, and 100 parts of it afforded 23.5 of oxygene gas.

These facts confirm the popular opinion, that when the leaves of vegetables perform their healthy functions, they tend to purify the atmosphere in the common variations of weather, and changes from light to darkness.

In germination, and at the time of the decay of the leaf, oxygene must be absorbed; but when it is considered how

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*Mr. Knight has been so good as to furnish me with the following note on this subject.

"The experiment which I tried the year before last, and last year, to preserve turnips from the fly, has not been sufficiently often repeated to enable me to speak with any degree of decision; and last year all my turnips succeeded perfectly well. In consequence of your suggestion, when I had the pleasure to meet you some years ago at Holkham, that lime slaked with urine might possibly be found to kill, or drive off, the insects from a turnip crop, I tried that preparation in mixture with three parts of soot, which was put into a small barrel, with gimblet holes round it, to permit a certain quantity of the composition, about four bushels to an acre, to pass out, and to fall into the drills with the turnip seeds. Whether it was by affording highly stimulating food to the plant, or giving some flavour which the flies did not like, I cannot tell; but in the year 1811, the adjoining rows were eaten away, and those to which the composition was applied, as above described, were scarcely at all touched. It is my intention in future to drill my crop in, first, with the composition on the top of the ridge; and then to sow at least a pound of seed, broad-cast, over the whole ground. The expense of this will be very trifling, not more than 2*s.* per acre; and the horse-hoe will instantly sweep away all the supernumeraries between the rows, should those escape the flies, to which however they will be chiefly attracted; because it will always be found that those insects prefer turnips growing in poor, to those in rich ground. One advantage seems to be the acceleration given to the growth of the plants, by the highly stimulative effects of the food they instantly receive as soon as their growth commences, and long before their radicles have reached the dung. The directions, above given, apply only to turnips sewed upon ridges, with the manure immediately under them; and I am quite certain, that in all soils turnips should be thus cultivated. The close vicinity of the manure, and the consequent short time required to carry the food into the leaf, and return the organisable matter to the roots, are, in my hypothesis, points of vast importance; and the results in practice are correspondent."

*I found the Arenaria tenuifolia to produce oxygene in carbonic acid, which was nearly pure.

large a part of the surface of the earth is clothed with perennial grasses, and that half of the globe is always exposed to the solar light, it appears by far the most probable opinion, that more oxygene is produced than consumed during the process of vegetation; and that it is this circumstance which is the principal cause of the uniformity of the constitution of the atmosphere.

Animals produce no oxygene gas during the exercise of any of their functions, and they are constantly consuming it; but the extent of the animal, compared to that of the vegetable kingdom, is very small; and the quantity of carbonic acid gas [203] produced in respiration, and in various processes of combustion and fermentation, bears a proportion extremely minute to the whole volume of the atmosphere: if every plant, during the progress of its life, makes a very small addition of oxygene to the air, and occasions a very small consumption of carbonic acid, the effect may be conceived adequate to the wants of nature.

OBJECTIONS ANSWERED.

It may occur as an objection to these views, that if the leaves of plants purify the atmosphere, towards the end of autumn, and through the winter, and early spring, the air in our climates must become impure, the oxygene in it diminish, and the carbonic acid gas increase, which is not the case; but there is a very satisfactory answer to this objection. The different parts of the atmosphere are constantly mixed together by winds, which when they are strong, move at the rate of from 60 to 100 miles in an hour. In our winter, the south-west gales convey air, which has been purified by the vast forests and savannas of South America, and which passing over the ocean, arrives in an uncontaminated state. The storms and tempests which often occur at the beginning, and towards the middle, of our winter, and which generally blow from the same quarter of the globe, have a salutary influence. By constant agitation and motion, the equilibrium of the constituent parts of the atmosphere is preserved; it is fitted for the purposes of life; and those events, which the superstitious formerly referred to the wrath of heaven, or the agency of evil spirits, and in which they saw only disorder and confusion, are demonstrated by science, to be ministrations of divine intelligence, and connected with the order and harmony of our system.

Common Schools.

REPORT

Of the Superintendent of Common Schools.

ALBANY, February 21, 1820.

To the Hon. the Legislature of the State of N. York.

The superintendent of common schools respectfully reports—

That the returns of common schools, for the last year, are much more full and satisfactory than any before received. An abstract of the returns is herewith transmitted, from which it will be seen, that in 515 towns there are 5763 common schools organized according to law, and that in 5118 of these schools, from which only particular district returns have been made, there have been taught, during the last year, in the various branches of elementary education, 271,877 children. The number of children between the ages of five and fifteen years, residing in the districts from which the returns have been received, is 302,703. The number of children taught is, therefore, equal to nine-tenths of the number between the ages of five and fifteen years.

At no former period has the proportion of children taught been so great; and no former estimates of what that proportion would ultimately be exceed the present ascertained results.—When the first act of the legislature for the establishment of common schools was carried into operation, the number of children taught, as appears from the returns then made, did not exceed four-fifths of the number between the ages of five and fifteen years. From subsequent returns it appears, that the proportion of children taught had gradually increased, in each successive year, until, by the returns of 1818, it was found to be equal to seven-eights of the number between the ages of five and fifteen years; since that time, and within the space of one year, it has further increased to nine-tenths of that number. In many parts of the state the number of children taught, as appears from the present returns, is equal to the whole number between the ages of five and fifteen years, and in some places it is even greater. The time during which regular schools have been kept in each year, has also increased in about the same ratio as the number of children taught; and the condition of common schools, in every other respect, is believed to have received, through the operation of the system established by law, a corresponding degree of improvement.

The act for the support of common schools, as revised and passed at the last session of the legislature, has been in operation since the first of July last. No other defect has yet been discovered in it, than that of not providing the same protection to the various officers acting under it, in cases where they are prosecuted for any act done by them in their official capacity, as is provided by law for other officers in similar cases. The defect may be easily remedied, by extending to the commissioners of common schools, and to the trustees and collectors of school districts, the provisions of the "act for the more easy pleading in certain suits."

Respectfully submitted,

GIDEON HAWLEY,
Superintendent of Common Schools.

February 21, 1820.

An Abstract of the Returns of Common Schools of the several Counties in the State of New-York, for the year 1819.

Counties from which returns have been received.	Whole number of towns in said counties.	No. of do. from which returns have been rec'd.	Whole number of school districts in said town.	No. of do. from which returns have been rec'd.	Amount of public money received in said districts during the year	No. of children taught in said districts, during said year.	Number of children residing therein, between the ages of 5 and 15 years.
Albany,	7	6	111	93	D2148	4132	5882
Allegany,	9	9	66	62	652	1709	2048
Broome,	6	6	103	77	1245	3653	3735
Clinton,	5	5	43	43	993	1756	2550
Cayuga,	10	8	175	156	3655	9902	9999
Columbia,	14	12	160	160	3326	6359	8496
Chautauque,	8	8	90	65	699	2677	2608
Chenango,	17	17	205	181	3337	9614	8735
Cortland,	10	10	122	116	1926	5506	4864
Delaware,	15	14	141	139	2085	6050	6424
Dutchess,	13	13	189	175	5194	8378	10637
Essex,	13	13	93	81	1150	3263	3632
Franklin,	6	6	30	30	797	1048	1163
Greene,	10	10	118	109	2163	5829	6752
Genesee,	29	26	323	236	2727	12397	11072
Herkimer,	15	15	165	160	2886	8288	9472
Jefferson,	15	9	71	72	1916	4994	4854
Kings,	7	6	18	17	891	773	2207
Lewis,	6	6	39	42	912	2411	2357
Madison,	12	12	163	162	3859	10676	9879
Montgomery,	15	15	178	162	3705	8003	10831
Niagara,	17	13	100	59	796	3148	3812
New-York,					11055	3842	3842
Otsego,	21	21	254	240	4537	12828	13229
Onondaga,	12	12	187	186	3880	11772	12309
Oneida,	21	21	227	213	5289	14630	14383
Oswego,	12	12	60	60	1021	2696	2636
Ontario,	34	34	434	384	6590	23439	23435
Orange,	11	11	174	137	3282	6516	9714
Putnam,	5	4	36	35	882	1440	1871
Queens,	6	6	58	49	2020	2388	4755
Richmond,	4	4	18	18	632	789	1494
Rensselaer,	14	14	171	170	4274	9718	11735
Rockland,	4	4	36	33	898	1478	2115
Sullivan,	7	7	61	50	1056	1952	2115
Seneca,	7	7	115	82	2785	5000	5894
Suffolk,	6	6	90	84	1706	3899	4854
Schenectady,	5	5	46	42	682	1816	2420
Steuben,	13	9	97	73	1081	3545	3465
St Lawrence,	16	16	123	88	1025	3260	3559
Schoharie,	8	8	122	100	2051	4676	6107
Saratoga,	17	13	128	123	2423	7504	7367
Tioga,	9	8	79	68	1197	3435	4020
Tompkins,	5	5	98	98	3114	5567	6099
Ulster,	15	13	127	99	2746	4430	7074
Warren,	9	9	61	44	876	1950	2189
Washington,	16	15	189	177	3193	9863	9908
Westchester,	21	12	70	70	1758	3387	4732
Total,	555	515	5763	5118	117,151	271,877	302,703

GIDEON HAWLEY,
Superintendent of Common Schools.

FROM THE NEW-ENGLAND GALAXY.

American Genius.

The engraved portrait of the late THOMAS SMITH WEBB—whose name will never vibrate on the ear of his surviving acquaintance, without awakening an echo in some sacred recess of the heart—gives us another opportunity of rendering justice and homage to American genius and taste.

The portrait, from which this is copied, is by Mr. FROTHINGHAM. It is not only a successful, but a most happy effort of genius. Webb was a man of strong sensibility—and the feelings of the soul, sometimes, when the cares and embarrassments of an active and busy life pressed hard upon him, gave an air of pensiveness and gloom to his countenance. But he was not often thus. His face was the index of tranquillity—his eye beamed complacency—and on his lip hung an almost perpetual smile of affability. It was impossible to be long in his presence, without being happy; for he had that in his mien and deportment, which conciliated coolness, changed indifference to favour, and invited friendship. In some lucky moment, when all was harmony within, and all the soul was visible, Frothingham caught the mystic expression of mind—arrested the evanescent glow of feeling—and, with his magic pencil, gave them to immortality. Examine the picture. You will find the features delineated with an accuracy, that astonishes recollection. Nothing is distorted, nothing forgotten. There is nothing feeble, nothing left for memory to supply. It is Webb himself, as he spoke—smiled—felt—lived.

From this original picture, such as we have described it, Mr. JOHN R. PENNIMAN has taken a miniature copy, with equal truth and fidelity. As this was intended to be a memorial of the virtues, the talents, the taste, the intellectual pursuits of Webb, it is encircled with beautiful and appropriate emblems. Before him lies Handel's Messiah, and at his side the works of Haydn and Mozart, and his own Masonic Monitor, over all of which is fancifully thrown a wreath of roses. On the right, in the back ground, is an organ, and on the left, at a greater distance, stands the willow. In the centre of the extreme background appear the banners of Royal-Arch Masonry and the orders of Knighthood. The whole exhibits a combination of taste, imagination, genius, and

science, that is rarely seen in works of this description, and which give to the ingenious artist, a claim to the respect and honour of his countrymen that we trust will not pass unheeded and without reward.

We now come to speak of the engraving executed by Messrs. ANNIN & SMITH, and which is honourable to their industry and excellence in their profession. It is done in what is called the *stypling* style. They have been eminently happy and successful in transferring the likeness to the plate, and it would require a more critical eye than ours, to point out a failure, if one exists. These gentlemen are all Americans. We confess that we give indulgence to feelings of national pride—a pride which no sneering or ridicule shall wound or destroy—when we repeat that all the artists concerned in this work are our countrymen.

The following is the inscription at the bottom of the print.

THO. S. WEBB.

To the Masonic Family throughout the United States, who were cheered and illumined by the light of his mind; to the Handel and Haydn and Philo-Harmonic Societies, which commenced and flourished under his auspices; to the enlightened and good of all classes of men, who reverence genius and love taste, science and virtue, this print is respectfully dedicated, by their humble servants, JOHN R. PENMIMAN, ANNIN & SMITH.

Having discharged a duty to our fellow-citizens, the artists, imperfectly indeed; but to the best of our ability, we offer a slight sketch of the subject on which they have bestowed their labour.

Thomas Smith Webb was born in Boston, Oct. 30, 1774, and was educated at the public Latin school. We have been told, that he served an apprenticeship to the printing business, that he attempted to establish himself as a printer at Keene, N. H.—but removed thence to Albany, in 1792, where he followed the occupation of a paper stainer. From Albany Webb removed to Providence, where he was extensively, and, it is believed, prosperously, engaged in cotton factories. He returned, with his family, to Boston, in 1813. He was a man of undoubted integrity and persevering enterprise. But it is not always "in mortals to command success." Things went wrong. Commercial restrictions and their concomitant embarrassments disappointed the hopes and defeated the plans of Webb; and he was about to settle for life in Ohio,—hoping there to meet success, and to arrive at that enviable state of pecuniary independence which he had despaired of obtaining here. He was on his way to Columbus, Ohio, the spot he had selected for his future residence, when he died. His death was the effect of a paralysis, and took place at Cleveland, Ohio, on the 6th of July, 1819.

We have before attempted to honor the memory of Webb by sketching a brief outline of his character. Let that suffice. His friends have now an opportunity of procuring a memorial which is better than any thing we can write—the semblance of his features, traced by the hand of genius, and multiplied by the plastic fingers of art—and while contemplation dwells with fondness on this memorial, recollection will doubtless be busy in calling up his virtues, and presenting to the mind's eye unnumbered scenes where friendship and love once presided.

Happy, thrice happy Webb! To be thus early *removed*—to be kindly permitted by thy Maker, thus early to *retire*—from a world where pain and care, perplexity and doubt, attend upon enterprize—whose history bears inscriptions of vice and meanness, of avarice and fraud, of insult and oppression upon every page. The uncertainties of trade, the mutations of commerce, the rise and fall of stocks, acceptances and discounts, speculations and failures, harass thee no more.

> The storm, that wrecks the wintry sky,
> No more disturbs thy deep repose,
> Than summer evening's latest sigh,
> That shuts the rose.

Yet shall thy memory live, enshrined in the heart, "reverenced by genius," hallowed by love, consecrated by the tears of affection.

THE PLOUGH BOY.

ALBANY: SATURDAY, MARCH 11, 1820.

We are glad to present our Agricultural readers with the opinion of a gentleman, so scientific as Dr. COVENTRY, on the subject of the disorder which has affected the feet of our cattle, and which has proved so destructive in certain districts. The Doctor, it will be seen, differs from the opinion, that this disease is the effect of ergot in hay, and attributes it to the feet of the cattle being exposed to severe cold till they become frost-bitten. The subject is sufficiently important to deserve the most serious investigation, and we hope that all who have had any particular experience in relation to it, may be disposed to favor the readers of *The Plough Boy*, with the result of their observations; for he who points out the mode of saving a valuable animal which might otherwise be lost, serves his country as well as the individual whose immediate interest is at stake. We once more suggest to our correspondents the propriety of affixing their proper signatures to their communications. As the plough is of no party, no gentleman can excite any prejudice by appearing openly in support of his theory or practice in any branch of husbandry; and the advantages of such a course are too obvious to be pointed out; one important one, however, is that gentlemen whose minds are engaged in similar speculations and experiments, may become known to each other, and by a mutual interchange and comparison of ideas, may elicit new and important facts in that art, the improvement of which is the aim of every friend to his country.

Under the head of "AMERICAN GENIUS," in our columns of this day, will be found an article from the pen of the editor of the *New-England Galaxy and Masonic Magazine*, which will come home to the feelings of many in this vicinity. The article was written with the two-fold view of bringing into notice American artists, whose genius deserves the highest encouragement, and of paying at the same time a just tribute of respect to the memory of a man who was a distinguished artist, and a great lover of the arts, and who was in turn beloved by all who knew him and who knew how to estimate human excellence. There are many Albanians who remember THOMAS S. WEBB with feelings of friendship and affection, and who will read the article alluded to with deep and melancholly interest: For them in particular, as well as in justice to our own feelings, we have transplanted it into our columns; we say, in justiee to our own feelings; for WEBB was the companion of our early migration to this city; he was our friend and counsellor in the enterprise that led us here, and from that day till he died among strangers on the banks of ERIE, our friendship was mutual and uninterrupted. We enter, therefore, into all the feelings of Mr. *Buckingham* in the eulogy we have copied; and we shall cherish to the last moment of this sublunary existence, the sublime hope of meeting our departed friend in "another and a better world."

A calf was killed, on the 22d ult. by Mr. WILLIAM WARREN, of Bethlehem, which was one month and two days old; and weighed, after being being dressed, 30 lbs. per quarter.

TO THE EDITOR OF THE PLOUGH BOY.

SIR,

Considering your paper as a repository of curiosities that may take place amongst the farmers of the country; as well as a kind of register of the useful and practicable, I take the liberty of sending you the particulars of the remarkable fecundity of a cow, the property of Mr. Erastus Pratt, of Austerlitz, in the county of Columbia. The cow in question is a small black cow, six years old, and has produced ten calves of good size and order; she came in when coming two years old and produced one calf; the next spring three, and twins each succeeding spring; the pair she has now by her are males and similarly marked. She keeps in good order, and never has had a calf the same colour of herself. Instances of twins frequently occur, but an instance like the above, I never heard of before.

Yours, &c. B.

New-Lebanon, Feb. 24, 1820.

Weekly Summary.

A bill has been brought into the legislature of this state, requiring surrogates to give bail for the faithful performance of their duties, in regard to all monies required by law to be deposited with them.

A bill has also been brought in for having real property duly appraised before it can be sold on execution, and that it shall not be sold for less than three-fourths of such appraised value: and no judgment is to be a lien on real property for more than one year.

Notwithstanding the scarcity of money we see an account of Cashmere shawls lately sold in New-York for upwards of $300 each.

From the Goshen Patriot of 21st February it appears that Mr. Fink, of that town, has sold his oxen, of which mention was heretofore made, to Mr. Thomas Gibbons, of New-York, for 25 cents per lb. beside giving the previlege to Mr Fink of exhibiting the oxen in that city for his own profit. It appears that those who have seen them consider them the finest ever offered in market in this country. Be this as it may, the price given for them is a very strong testimonial of their uncommon excellence, and a strong inducement for an endeavour to afford others for the market equally fine.

From different sources of information, but most particularly from the appendix to the travels of DAVID THOMAS, of Cuyuga county, it seems to be a fact well ascertained that nature has provided a navigation for batteaux &c. from Lake Michigan into the Illinois river. The river Au Plein rises about 70 miles south west from the south end of that lake, and runs a northeasterly course till it comes within about 12 miles of the lake: here the stream divides; a part, called the Chicago river, runs into the lake, and the other part turns a southeasterly course till it meets another stream, and these together form the Illinois river, which, with the removal of some obstructions, is said to be sufficient for the navigation of sloops of war to its junction with the Mississippi. The waters of the river Au Plein, where the Chicago parts from it, are said to be only four feet higher than the waters of Michigan.

At Hartford, Con. a teamster, while passing through one of the streets of that town, was shot through the head, on the 15th inst. by a young man shooting at a mark! the wound supposed to be mortal. On the same day a Mr. Brown was also shot in the head, in Boston, by the accidental discharge of a rifle, which was in the hands of another—the wound supposed not mortal.

We have seen an account of a man of the name of Armstrong having won a bet of one thousand Dollars, by riding on horseback, from Fairfield, in Connecticut, to the city of New-York, a distance of 55 miles, in two hours and a half. He had eight horses stationed on the way for the purpose.

A Providence paper says, that at present the manufacture of hats appears to be the most flourishing in our country, as we now export hats to the amount of several hundred thousand dollars more than we import; the reason of which appears to be that our hats are found more durable than those of the English, though not so well coloured.

It would seem that no manufacturing place, in the United States, has felt the change of times more severely than Pittsburgh. In 1815, 1,960 hands were employed there in manufactures, and the articles manufactured were estimated at 2,617,833 dollars. In 1819, the number of hands employed was only 672, and the articles manufactured amounted but to 332,600 dollars.

The Governor of Ohio, in a late message to the legislature of that state, has communicated his ideas on the utility and practicability of cutting a canal from Lake Erie to the Ohio river. He estimates the probable expense at $3,000,000, and suggests the means, which are within the reach of that state, for accomplishing this great object.

The legislature of Ohio have incorporated the Muskingum mining company, for the purpose of working the silver mine lately discovered in that state. The company are to pay the state 15 per cent of the net profits derived from the mine

The legislature of Kentucky have lately enacted that all the *Independant banks* in that state are to become defunct by the first of May next, time being given them thereafter to wind up their concerns.

A letter in the National Intelligencer, from Richmond, Vir. in favor of a bankrupt law says "more than 200 persons in this city with their families, have lost and given up their all by the change of times."

At Norfolk, about 12 days since, the thermometer of Fahrenheit was, for several hours, up to 79 deg. when placed in a cool place in the shade.

On the 13th ult. John Fisher, and Lavinia his wife, were executed at Charleston, S. C. for highway robbery. They were previously attended by the clergy of the place.—Fisher was penitent, and, as appeared, died in full faith, resignation and hope, protesting his innocence, and his forgiveness of those by whose evidence he was condemned. Previous to his execution a well written and pathetic letter was read, by one of the reverend clergy, to whom it was addressed by Fisher, a part of which is as follows. "In a few moments the world to me shall have passed away—before the throne of the Eternal Majesty of Heaven I must stand—shall then, at this dreadful hour, my convulsed, agitated lips still proclaim a falshood? No! Then by that awful majesty I swear I am innocent. May the Redeemer of the world plead for those who have sworn away my life" His wife it seems was not so reconciled to her fate, having, as was believed, entertained strong hopes of receiving a pardon. It does not appear that she made any professions of her innocence. This very singular case must be still more singular if the husband was really innocent, and the wife guilty.

The citizens of Charleston, it appears, are considerably on the alarm on account of incendiaries that are believed to infest the city. One wooden building was on fire, but was fortunately extinguished before the flames could extend to others, and no fire had been known to be in or near the building for some time previous. Men have been seen carrying fire in unusual places, and fled on their being discovered. It appears also that an attempt has lately been made to set fire to Philadelphia.

At St. Louis, the Mississippi was closed for three weeks, so as to admit crossing it with teams; the snow was 18 inches in depth, and good sleighing was afforded throughout the country, and that in the Ohio.

Governor Bibb, of Alabama, has recommended the second Tuesday of April next as a day to be set apart for religious exercises, and public thanksgiving, throughout that state.

About the 10th of January last, the town of Alexandria, on Red river, was visited with a violent tornado, by which the court-house, and about 15 other buildings, were demolished; the roofs of some of the houses carried two miles; loss estimated at 100,000 dollars.

FOREIGN.

Revolution in Spain.—The Medora, lately arrived at Philadelphia from Cadiz, which place she left on the 9th of January, brings intelligence that the royal troops destined for South America, joined by the populace, had revolted, and taken possession of Seville, Cadiz, and several other places, and that 50,000 men were marching upon Madrid. The Medora left Cadiz three days after it was in possession of the revolutionists The state prisoners confined in and near Cadiz were all set at liberty, and have joined the standard of insurrection.

It is stated in the Charleston papers that accounts had reached Havanna of the capture of ten sail of Spanish Guinea men, from Cuba, taken to the northward of the line.

The republic of COLUMBIA was to be solemnly proclaimed to the citizens and the armies of that new empire, on the 25th day of December last. The country to be united under this republic contains about a million of square miles. The republic is to be divided into three great departments, to be called Venezuela, Quito, and Condinmarca, the latter including the provinces of New-Grenada, which name is to be disused. These departments are to have three capital cities, which are Caraccas, Quito and Bagota. In addition to these a scite is to be selected for a national city, or capital of the empire, to be called *Bolivar*. The executive power is to be vested in a president, and three vice-presidents are to preside over the departments. The constitution is to be formed by the congress to be elected, and the government is to be elective.—Such are the leading outlines of the fundamental law, as promulgated, of this young and rising republic.

In a late English paper we have the following. "A young man has lately been liberated, after a confinement in chains of 15 years in a cellar by his own *parents*. The family's name is Surr, of Black Band, Eng. The *father's* excuse for his cruelties towards his child was that the son was lunatic. A great part of the time the child had not been cleaned.

Gas lights.—The number of these now in use in London, is said to be upwards of 51,000, and that the total length of conductors in the streets, through which the gas is conveyed from the gas light factories, into the houses, now measures 283 miles.

From Upper Canada we learn that the landed estates of certain traitors, and of persons declared to be aliens, are to be sold to indemnify the loyalists of that country for the losses they sustained during the last war.

A savings bank has been established at Botany Bay. It is said the governor of that settlement has sent two female convicts back to England; the reason assigned for which was, that they were too depraved to be tolerated even there.

At Antwerp is a society formed for training pigeons to be letter carriers. The pigeons trained for the purpose have been sent to London with letters, and have returned with the answers. The use of this bird for this purpose is not; however, of recent date, as they were used among some of the ancients for a similar purpose, as well as in more modern times, and they have been long used for carrying dispatches throughout the empire of Turkey.

By the last accounts from the Sandwich Islands we are informed of the death of the celebrated king of those islands. By his valor and talents he had united these islands under one government, and he had the reputation of an able and good sovereign. He has left about $150,000 in his coffers, and the division of this spoil, together with the claims of competitors for power, was likely again to occasion divisions of this little empire.

SYNOPSIS

Of Miscellaneous Items from European Papers.

At a late sale in England of a stock of prime cattle of the Herefordshire breed, the following enormous prices were obtained. One cow and her calf (a 2 year old bull) brought 150*l.* 5*s.*—4 bulls, 107*l.*—2 bull calves, 36*l.* 5*s.*—5 cows, 135*l.* 5*s.*—average of each, 27*l.* 13*s.*—7 other cows averaged 121*l.* 16*s.* each—2 two year old heifers sold for 178*l.* 10*s.*—2 yearling do. 152*l.* 9*s.*—2 heifer calves, 56*l.* The whole stock, 32 in number, 10 of which were calves, 12 yearlings and 11 two years old, produced 4,673*l.* and 14*s.* sterling!!—According to the new school in England a *Dealer in Marine Stores* is a receiver of stolen goods: *an old Shopkeeper*—one who buys goods *honestly*, but has no customers; *a new Shopkeeper*—one who buys goods for 100 pounds, sells them for 90, and lives comfortably: *a Coach Proprietor*—one who will give you a dinner to ride in his coach to Manchester, and make a handsome profit by it: *a Broker*—a man not worth a doit: *a Hop Merchant*—one who rides in his carriage one year and drives it the next: *a Bankrupt*—one who keeps a country house, horse and gig, and nods at his creditors who are walking to town: *a Gentleman*—one who lodges in a garret and lives upon samples; *a Tax-Gatherer*—the devil's uncle: *an Exciseman*—his cousin-german: *an Englishman*—a man who has had his nose cut off, and then kicked by a Yeomanry Trumpeter.——A letter from the East Indies mentions, that five hundred men had been put to the sword in the fort of Nowah, who had refused to surrender to the English.——The following singular instance of feline sagacity lately took place. A cat belonging to a shipmaster, by accident was left on shore when the vessel sailed. The vessel was absent a month, and on her return the cat came on board with a kitten in her mouth, and went down into the cabin. What makes it remarkable is, that vessels were daily arriving and departing, but the cat never visited them, remaining in a neighbouring wood until the vessel she had left returned.——An Irish paper gives an account of the death of a female named Esther Hanlon, who lost her life in consequence of her taking medicine administered by a female quack, who pretended to effect cures in all cases.——While the workmen employed in the Diving Bell at Plymouth, England, were under water, a large bass in pursuit of some smaller fish, pursued them into the bell, leaping over the board on which the workmen placed their feet, and escaped under the bell—two of the affrighted little fish were taken by the workmen.——The British government have 137 ships of war of various descriptions now in commission.

An Edinburgh paper mentions that an improvement has been made in Printing by applying the ink to the type by means of composition rollers in place of balls, and that a simple and ingenious machine for supplying the rollers with ink had been invented by a pressman in Edinburgh, which had been found so efficient and useful after repeated trials that the master printers had made a present of 24 guineas to the inventor.

N. Y. Advertiser.

MARRIED,

On the 2d inst. by the Rev. Mr. Stansbury, Mr. CORNELIUS V. GIBSON, to Miss. CATHARINE A. FREEMAN, both of this city.

DIED,

In this city, on the evening of the 1st inst. JOHN VAN SCHAICK, Esq. President of the Bank of Albany.

On the 3d inst. Mr. JOHN I. GROESBECK, in the 42d year of his age.

On the 4th inst. Mr. GERRIT H. VAN HOESEN, in the 37th year of his age.

PRESENT PRICES OF COUNTRY PRODUCE IN THIS MARKET.

FLOUR AND GRAIN.—Superfine flour $6—Rye flour $2 75 per bbl.—Indian meal $1 50 cwt.—Buckwheat flour $1 25 to $1 75 cwt.—Wheat 87 cents to $1 6 bush.—Rye 54—Corn 44—Oats 31—Barley 75—Peas 50 to 62 1-2 per bush.

Beef, stall fed $6 cwt.—common beef $3 to $4 50—Pork $6 to 6 50—Mutton 3 to 4 cents per lb.

Hay, average, 37 1-2 cents per cwt.

Butter 10 to 12 cents per lb.—Cheese, good, $6 per cwt.—Cider $ 2 to 2 50 p. bbl.—Potatoes 30 cents per bushel.—Turnips, ruta baga, 37 1-2 cent—white, 25 cents.

LUMBER.—Pine plank 14 cents—white p. do. 18—do. boards, good, $2 100 ft. com. $1 do.—Shingles, good, $1 50 per bundle.

Albany, March 10, 1820.

PRICE CURRENT.

Corrected Weekly, from the New-York General Price Current and Public Sales Report.

	Per	From D.	From C.	To D.	To C.	Remarks
ASHES, Pot	Ton	115		116	25	Dull.
—— Pearl		117				"
BEEF, Mess	bbl	10				
—— Prime		8		8	25	
—— Cargo		6	25			
BUTTER, first quality	lb		15		16	
—— for exportation			9		11	
CANDLES, mould			18		19	
—— Dipped			17			
—— Sperm.			44		45	
—— Wax			60			
CHEESE, American			6		7	
CHOCOLATE, New-York			17		24	
—— Boston, No. 1.			17		24	
—— Albany			20		25	
DOMESTIC GOODS,						
—— White shirting	yard		14		18	
—— Brown do			12		13	
—— 3-4 checks			16		18	
—— 7-8 do			21		22	
—— 4-4 do			24		27	
—— Stripes			16		18	
—— Plaids			16		20	
—— Bed-ticks			28		36	
—— Chambrays			14		15	
FEATHERS	lb		55		62	
FISH, Dry Cod	cwt	2	50	2	87	
—— scale		2				
—— Pickled Cod	bbl	3	50	4		
—— scale		2				
—— Salmon		15				
—— Fall mackrel No. 1		8		8	75	
—— —— No. 2		5	50	6		
—— —— No. 3		4	50	5		
—— Southern shad No. 1		5	50	7		
—— Connecticut mess shad		10	50	11		
—— Herrings		2	50	3		
FLAX	lb		16		18	
FLAX-SEED, clean	cask	13		13	50	
—— rough		12		13		
FLOUR & GRAIN						
—— New-York superfine	1 b.	5	50	5	75	
—— Philadelphia		6		6	25	
—— Baltimore		6	25			
—— Richmond		6		6	25	
—— Middlings, fine		4		4	50	
—— Rye flour		3			12	
—— Indian meal		3	25	3	50	
—— —— in hogsheads	800	13		19	50	
—— Wheat, North River	bus		87	1		
—— —— Southern, new		1	9	1	10	
—— Barley			65		68	
—— Oats			40		49	
GLASS, Amer. 7 by 9	box	9				
—— - 8 10		10				
—— - 10 12		12		12	50	
GLUE	lb		12		13	
GUN-POWDER, Amer.	25lb	5		6		
—— - Cannon		6		6	50	
HAMS, Virginia	lb		10		12	
— North River			9		11	
HEMP, Water rot	Ton					None.
—— Dew rot		150				Scarce.
HOGSLARD	lb		11		12	
HONEY			15		16	
HOPS 1st and 2d sort			6		8	
IRON, American	Ton	85		90		
LUMBER, Boards, oak	Mft	13				
—— North River pine		16		17		
—— Yellow pine		18		20		
—— Albany pineb'ds	pie.		18			
—— Scantling, pine	Mft	14		15		
—— —— oak		25				
— Oak timber	sd ft		20		25	
—— Shingles, cypress	1000	4				
—— —— pine		3		3	50	
—— Staves, pipe		60				
—— — hhd		46				
—— — bbl		28				
—— — R O hhd		28				
—— Hhd heading		54				
—— — hoops		25		30		
OIL, Linseed	gal	1				
PLAISTER of PARIS	Ton	4	50			
PORK, Cargo	bbl	10	50			
—— Prime		12	25	12	50	
—— Mess		14	75	15	25	
SOAP White			13		15	
—— Brown			9		11	
WAX, Bees, white			55		60	
—— —— yellow			31		32	

New-York, March 3, 1820.

Domestic Economy.

Dutch method of making Butter.

After having milked their cows, the Dutch leave the milk to get quite cold before they put it in the pans. When placed therein they do not permit it to stand for the cream to rise more than about four hours. They then stir it together more intimately to combine the milk and cream, and continue thus to do at least two or three times a day.—If it be agitated in this manner, as occasionally happens, till the whole be quite thick, the butter thus obtained, is the most highly esteemed. As soon as it acquires the usual consistency, it is churned commonly about an hour, till the butter begins to form; cold water is then added, proportioned to the quantity of milk, for the purpose of facilitating the separation of the buttermilk. The butter being properly come, it is taken from the churn, and repeatedly washed and kneaded in fresh water, till the buttermilk is all expressed, and it no longer retains any tinge of white. By this simple mode not only far more butter is made from the same quantity of milk than in any other way, but the butter itself is firmer, sweeter, and continues longer fresh than the generality of butter; while the buttermilk is infinitely more agreeable to the palate.

Method of rendering Glass less brittle.—Let the glass vessel be put into a vessel of cold water, and let this water be heated boiling hot, and then allowed to cool slowly of itself, without taking out the glass. Glasses treated in this way may, while cold, be suddenly filled with boiling hot water, without any risk of their cracking. The gentleman who communicates the method, says that he has often cooled such glasses to the temperature of 10°, and poured boiling water into them, without experiencing any inconvenience from the suddenness of the change. If the glasses are to be exposed to a higher temperature than that of boiling water, boil them in oil.

Annates de Chim. et de Phys. IX.

BARLEY COFFEE.

A Western paper mentions that barley is much superior to rye and wheat as a substitute for green coffee. Take clean good barley, and wash it well through two or three waters, then put it into boiling water over the fire, and let it boil until it swells sufficiently to burst some of the grains, then take it off and drain it and dry it in the sun, or in an oven after baking, or slowly by the fire. It is then ready to parch as coffee. It must be boiled and cleared in the same manner as coffee.

SORE THROATS.

At this season of the year, when many people are afflicted with that dangerous and distressing complaint, a sore throat, the following receipt for its cure is said to be very useful:—Take a glass of olive oil, half a glass of spirits of turpentine, mix them together, and rub the throat externally, wearing flannel round it at the same time. It proves most effectual when applied early. Sweet oil will answer equally as well.

A Baltimore paper says that a merchant in Philadelphia sells 40 bushels of roasted rye per day, as a substitute for coffee, and that its use is also becoming very prevalent in Baltimore. (Barley is preferred as a substitute, by those who have made trials of each sort of grain.)

It is said that, by a recent discovery, Chesnut wood is found to be an excellent substitute for logwood in dyeing, and that its affinity to wool is greater than that of either galls or sumac. Its use as a substitute for oak bark, in tanning, has already been made known.

Sale of Land for Taxes.

State of New-York—Comptroller's Office.

PUBLIC Notice is hereby given, that lists of certain lands liable to be sold for taxes, have been forwarded to the several counties in this state, in order to be deposited in the several county treasurers' and town clerks' offices, respectively, for the information of all persons concerned; and that the said lists may be examined at either of the said offices, at all reasonable hours: And notice is hereby also given, that on *Thursday, the seventh day of October next*, at ten o'clock in the forenoon, at the capitol, in the city of Albany, and on the next succeeding days, I will sell at public auction to the highest bidder, so much of each lot, piece or parcel of land mentioned and described in the said lists, as will be necessary to pay all taxes, interest and charges now due, or that may grow and may be due thereon at the time of sale.

The conditions of sale will be, that the purchasers within forty-eight hours after the sale, pay the purchase moneys and receive certificates of their purchases; and that after the expiration of two years from the date of their certificates, they receive conveyances for the lands purchased by them respectively, unless the owners, or those claiming to be such, of the lands so purchased, shall, previous to the expiration of the said two years, pay to the comptroller, for the use of the said purchasers, their heirs and assigns, the amount of the purchase moneys, with interest, at the rate of twenty per centum per annum.—The lands sold to be subject to all claims of the state thereon. And in case any land to be purchased at the said sale and that may be conveyed in pursuance thereof shall at the time of conveyance be in the actual possession and occupancy of any person or persons, the title of the purchaser shall then and in that case be subject to the stipulations and provisions of the fifth section of the act, entitled "an act to repeal in part the act, entitled "an act providing more effectually to ascertain and determine the true value of real estates within this state, and for other purposes," and further to amend the act for the assessment and collection of taxes" passed April 13, 1819.

ARCH'D. M'INTYRE, Comptroller.

Albany, May 27th, 1819

☞ Persons who may have made payments into the treasury for taxes, and omitted to have their receipts presented at the comptroller's office to have them entered and countersigned as required by law, are advised to present them in order to be so entered and countersigned before the day of sale; or that in case of failing to do so, their lands will be sold and they thereafter be deprived of the benefit of all such payments.

Payments for taxes cannot be received on the days of sale, nor for two days prior to the sale.

☞ The above mentioned sale is postponed untill Tuesday, the eighth day of February next, at ten o'clock in the forenoon.

ARCH'D M'INTYRE, *Comptroller.*

Albany, October 2, 1819.

☞ Agreeably to an act of the legislature, passed this day, the above sale is further postponed until the first Tuesday of February in the year 1821, to be then held at the same place and hour. ARCHD. M'INTYRE, *Comptr.*

Albany, February 4, 1820.

ALBANY: PRINTED FOR THE EDITOR,

BY JOHN O. COLE.

☞ COMMUNICATIONS, SUBSCRIPTIONS, and ADVERTISEMENTS, for this paper and PRINTING JOBS of every description, which will be neatly executed, at fair prices, received at the Post Office. All letters from abroad, directed to the Postmaster, Albany, will be duly attended to.

TERMS.

THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.